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ABSTRACT

Incentives such as enlistment bonuses are frequently suggested as a means of enhancing recruiting in the all-volunteer force setting. The basic assumption behind them is "more is better." Single incentives, double incentive packages, and triple incentive packages were compared for potential influence on enlistment. Also, in the same vein, the following comparisons were made: (1) $1,000 vs. $3,000 bonus, and (2) two years free college after four years of service vs. four years free college after four of service. There was no support for "more is better." Furthermore, "more is sometimes worse." The most attractive items showed a pervasive interest first in opportunities for self-determination as well as traditional incentives. Recruitment strategies will have to take both needs into account. (Author)

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A STUDY OF EXPERIMENTAL INCENTIVES AS AN INFLUENCE ON ENLISTMENT INTENTION

Albert S. Glickman
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Barry E. Goodstadt
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TECHNICAL MEMORANDUM No. 2

Navy Career Motivation Programs in an All-Volunteer Condition

Principal Investigator: Albert S. Glickman

DECEMBER 1973

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INTRODUCTION

The Navy needs to develop better administrative techniques to foster the appeal of a Navy career by competent personnel. The choice of a strategy by which to influence career motivation in the Navy has assumed increasing importance in the all-volunteer setting. Despite the urgent need, however, the optimum strategy is not immediately apparent. While a variety of strategies are possible, research data are lacking to indicate the best of the approaches to follow at this time.

As part of our research program in Navy career motivation, major concerns have been, first, the specification of the types of change strategies which are possible and, second, the identification of the conditions under which each of these strategies would be most effective in influencing career motivation. In the latter case, our interest has been in specifying the types of change strategy that are most effective in given environmental situations and the types of people for whom it is most effective in that situation. Our purpose in this report is to discuss the results of the first of our attempts to estimate the influence of one change strategy, the utilization of experimental incentives for influencing enlistment. Our procedure here will be to first discuss the logic underlying the utilization of incentives as mechanisms for influencing behavior. Following this discussion, we will present the outcomes of our research designed to ascertain the potential usefulness of a number of experimental incentives for influencing intention to enlist in the Navy.

Incentives as a Change Strategy for Influencing Career Motivation

The basic logic of a change strategy in which incentives are manipulated (earlier called a Type I strategy), can be summarized rather briefly. Despite apparent simplicity, there are some very strong, long-standing management assumptions rooted in this approach. Consequently, if they turn out not to be justified by empirical data, strong implications for policy changes become manifest. As we will see, it is precisely such a situation which is displayed in the findings of the research which we shall report.

The logic of "incentives" as a change mechanism starts with the simple paradigm that if you offer people the opportunity to gain specific objects or objectives which they value, they will change their behavior in order to realize these values and then adjust their behavior in order to maintain these values. In this way, behavior theoretically can be "shaped" and "maintained" in the manner desired by the individual controlling the valued "reinforcements."

This apparently simple paradigm has served as a point of departure for change attempts in a variety of social contexts, but the implicit assumptions of this approach have often been overlooked. Yet, they are crucial in both the design and utilization of incentive change methods.

One assumption is that the incentives which are being manipulated actually represent appreciable values and constitute sources of attraction to the target population involved. To the extent that they are not, obviously, the approach loses effectiveness. For the Navy, which in the all-volunteer force (AVF) setting deals with a great diversity of individuals with a wide variety of needs and motives, value assumptions attached to incentives employed are particularly crucial. Clearly, the greater the diversity among individuals in the target group, the harder it will be to use any single incentive change strategy effectively.

Another assumption of the incentive change strategy is summed up in the phrase, "more is better." That is, if the opportunity to realize values will serve to change behavior, then the more "value opportunity" that is provided (in the sense of either greater amounts of a specific value or a greater number of specific values) the greater will be the change in behavior that would take place in the individual and the greater the proportion of the group that will be affected. To the extent that this assumption is supported, the job of the administrator in utilizing this approach is clearly specified. To the extent that this is not so--e.g., sometimes increases in incentives lead to changes and sometimes they do not--different implications for administration must be drawn. As we shall see, the latter condition obtained in the research reported here.

Finally, a third assumption of the incentive approach is that the effectiveness of an incentive is independent of the context in which it is presented and utilized. There is considerable doubt that this assumption

can be met. For example, support can be found for the conclusion that incentives that are presented to individuals who have been given such incentives previously have a different effect than upon those who have not obtained incentives earlier (Korman, 1971). Similarly, Deci (1972) has shown that combining intrinsic incentives with one another and extrinsic incentives with one another have different effects than combining intrinsic and extrinsic incentives with one another. The data we will present here have implications for the adequacy of this assumption also and the administrative implications which follow from them.

Objectives

The purpose of the research reported here was to administer a set of experimental incentives to a random sample of male youth in the age ranges 16-22 in order to ascertain their potential fruitfulness for inducing enlistment in the Navy. In this assessment, an effort was made to compare the potential fruitfulness of these incentives when they were presented individually and when presented in combination with one another. In line with the iterative procedure we have outlined elsewhere (Glickman, et al., 1973) such information would then be utilized in the planning of additional administrative experiments utilizing an incentives strategy.

Method

Incentive development. In developing the experimental incentives to be used in this first iteration, a variety of procedures were employed in order to be sure to consider a wide range of possibilities with potential applicability to contemporary American youth. Of considerable importance in formulating these incentives were our discussions with Navy personnel concerning the types of incentives which were perceived as being viable within the Navy setting, considering the new extraordinary demands being made by the AVF. These discussions took place in a continuing series of formal and informal meetings and during the feedback sessions we have been holding with Navy personnel as an integral part of our overall research, development, evaluation, and feedback sequence. Also important in this development was the work of many previous researchers in the field of Naval enlistment incentives (cf. Gilbert Survey, 1972), the youth attitude surveys sponsored by ONR which are being

conducted by the University of Michigan (Johnson & Bachman, 1972). A third influence was our continuing surveillance of contemporary behavioral science research on the continually changing values and mores of our society. Finally, a major factor in our thinking has been the findings of our recent studies in Naval career motivation. Thus, in both our interview research (Glickman, et al., 1973) and in our questionnaire survey of junior-college students (Korman, et al., 1973) we have found continually that respondents ascribe high value to "fate-control" in one's vocational life as well as to traditional tangible incentives such as money, the opportunity for advancement, and health and welfare benefits. Particularly notable in the latter study was the finding in a factor analysis of a preliminary set of experimental enlistment incentives that approximately 48% of the common variance was accounted for by a factor denoting desire for "fate-control" in one's vocational life. In addition, consistent with our previous discussion, this last study also suggested the possibility that different incentives might be of differential value to men from different socio-economic backgrounds. Hence, our experimental incentives needed to take these findings into consideration.

Administrative procedures. As a result of these influences, a total of 17 experimental incentives were developed for evaluation. In Appendix A can be found the instruction to respondents, the complete list of incentive statements and the response alternatives. The procedure used for evaluating these incentives was a function of our interest in determining the effects of these incentives both singly and in combination with one another. However, practical consideration also dictated that not all possible combinations of incentives could be used. Hence, a procedure was developed whereby the total sample available was subdivided on a random basis to obtain seven subsamples (A-G). The members of each subsample then responded to five or six incentive statements or combinations of incentive statements as shown in Figure 1.

	Subsamples						
	A	B	C	D	E	F	G
Items to Which Samples Responded	1	2	3	1+2	2+3	1+3	1+2+3
	4	5	6	4+5	5+6	4+6	4+5+6
	7	8	9	7+8	8+9	7+9	7+8+9
	10	11	12	10+11	11+12	10+12	10+11+12
	13	14	15	13+14	14+15	13+15	13+14+15
	16	17					

Figure 1. Sampling Design

In response to each set of 1, 2, or 3 incentive statements, the subject was requested to: "Indicate what effect these changes would have on your interest in the Navy." Five alternatives were offered ranging from, "I would think less favorably of the Navy, if this change was introduced;" to "I would think more favorably and would seriously consider enlisting in the Navy.

Interviews were individually administered.

In this way, all subjects gave five responses, with the exception of Subsamples A and B where six responses were required, with some receiving simple (single) incentives and some receiving complex (double or triple) incentives. The first five rows of the design, involving items 1 through 15, permitted us to ascertain the value ascribed to each of the incentives when presented singly and when additional potential value would be involved by increasing the number of incentives in a "package," with response "demand" controlled by presenting only one type of set (single, double or triple) to any respondent. Items 16 and 17 were included to permit examination of the effect of manipulating the absolute level of two incentives of particular interest. The comparisons involved were Item 1 with 17, and Item 15 with 16.

Sample. The vehicle for administration of these experimental incentives was the national sample utilized by Gilbert Youth Research as part of its Omnibus Youth Survey, that is, conducted on a quarterly basis. This sample consists of a nationwide sampling of youth, ages 14-22, stratified

within geographic region according to age and school status. Race and socio-economic background are available for breakdown analysis, but are not used as bases for stratification. The Navy incentive questions were administered in May 1973 to 860 members of the sample who were males aged 16-22. Table 1 provides a breakdown as to the sample sizes and appropriate sub-class frequencies for each of the seven subsamples used.

Table 1

Sample Size and Sub-class Frequencies
for Each Subsample

	A	B	C	D	E	F	G
Total	142	129	160	102	133	107	87
White	129	118	143	98	119	97	73
Black	13	11	17	4	14	10	14
H.S. Student	51	64	47	52	48	53	60
College Student	59	30	87	29	61	30	9
Non-school	32	35	60	21	24	24	18

RESULTS

Except for Items 16 and 17 (which will be discussed later), the incentives are best described as comprising five sets. Each set, corresponding to a row of the sampling design in Figure 1, consists of incentives which are specific examples of factors found to be important in the questionnaire survey of junior college students (Korman, et al., 1973).

The first row (i.e., Items 1, 2, 3, 1+2, 2+3, 1+3, 1+2+3), is a set of incentives and incentive packages which reflect a factor of vocational and financial satisfaction. The second set represents a factor of integration of military and civilian life. The third set represents a factor of self-determination or fate-control in one's vocational life. The fourth set represents a factor of reduction of perceived inequities. The fifth set represents a combination of two of the above factors--self-determination and vocational/financial satisfaction.

Effects of Increasing the Number of Incentives

A number of different analyses were made. The first analysis investigated the "more is better" assumption when the number of incentives offered was increased. Within each set, the best single incentive, the best double incentive package, and the triple incentive package were compared by analysis of variance. The comparative attractiveness of the above for each set is shown in Figure 2. The results were consistent within each set. In every case, the best double incentive package was not significantly more (or less) attractive than the best single incentive. Also, in every case, the triple incentive package was not significantly more (or less) attractive than either the best double incentive package or the best single incentive. Clearly, the "more is better" assumption was not at all supported. All statistical tests were made after partialling out differential effects of educational status, age, family income, and race, using Overall and Spiegel's (1969) Method - 2, least squares analysis of variance.

Since some of the best double incentive packages did not include the best single incentive, another approach to the analysis of the "more is better" assumption was made. Within each set, the best single incentive, the best double incentive package that also included the best single incentive,

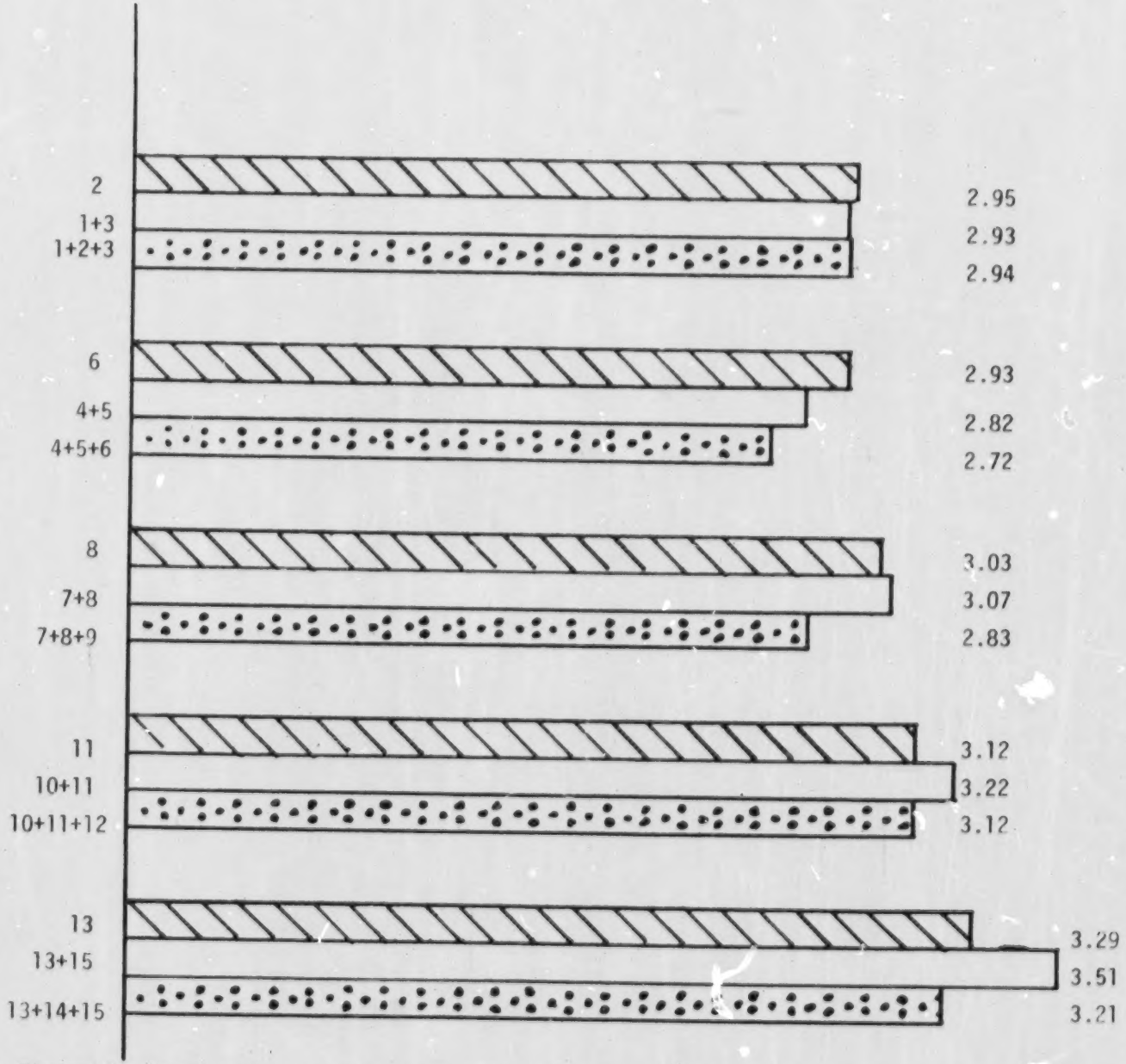

Figure 2. Comparative attractiveness of the best single incentive, the best double incentive package, and the triple incentive package within each set.

and the triple incentive package were compared by analysis of variance. The comparative attractiveness of the incentives is shown in Figure 3. As before, the results were consistent within each set. Even though the double incentive packages were rated higher in absolute terms in some instances, in no case was the difference from its best single component greater than could be accounted for by chance. Also, the mean rating of the triple incentive package was not significantly different from either the double incentive package or the best single incentive.

In both sets of analyses, the "more is better" assumption did not receive any support. Adding one or even two incentives to the best incentive of every set had no significant positive or negative effect on the attraction of the Navy to civilian interviewees.

To test the limits of generalization further, one may compare all singles (not only the best one) against all double and triple packages in which they are contained. When we did this, we found that of 30 such comparisons involving singles and doubles, singles were significantly higher than doubles in six instances, lower in three instances and no different in 21 instances. Comparing singles and triples in 15 cases, singles were significantly higher than triples in no cases, lower in two cases and no different in 13 cases. Even when the least attractive single incentives are included in the comparisons, there are no significant differences in 34 of the 45 cases. Considering the significant differences, the single incentives are more attractive as often as they are not. So it would appear that we can extend our generalization over a wider range of incentive values quite confidently.

Effects of Increasing the Absolute Magnitude of Incentives

For two pairs of the single incentive items, another approach was taken. We wished to see whether increases in the absolute magnitude of single incentives would enhance the attractiveness of the Navy. Differences in the value of an enlistment bonus were presented since enlistment and reenlistment bonuses have a long history of popularity and use, though the Navy is not using enlistment bonuses at present. Thus, the attractiveness of a $1000 enlistment bonus was compared with the attractiveness of a $3000 enlistment bonus (Item 17 vs. Item 1). Another popular incentive is coverage

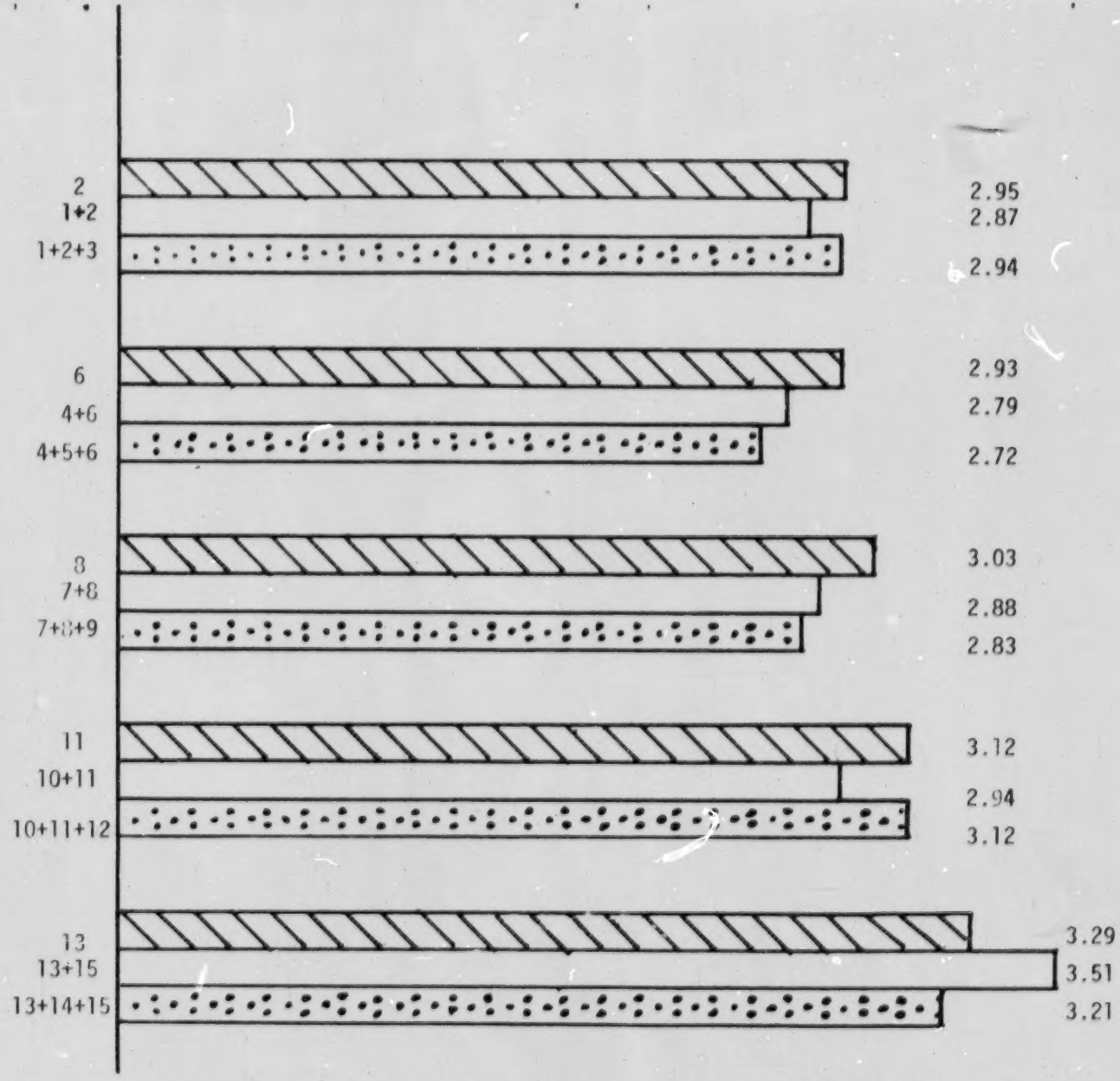

Figure 3. Comparative attractiveness of the best single incentive, the best double incentive package which includes the best single incentive, and the triple incentive package within each set.

of college expenses after an enlistment term. Two years of college after four years of active duty was compared with four years of college after four years of active duty (Item 16 vs. Item 15). The results are shown in Figure 4. Surprisingly, contrary to popular opinion, the $1000 bonus is marginally more attractive than the $3000 bonus ($p < .10$). Also, there is no significant difference in attractiveness between two years of college and four years of college expenses. In this case, not only has the "more is better" assumption failed to be supported, but there was a tentative suggestion that "more is sometimes worse."

Differences in Attractiveness of Incentives as a Function of Socio-demographic Status

Tests were also made to see if there were differences in attractiveness of the incentives and incentive packages as a function of socio-demographic status. Educational status (high school student, college student, non-school youth), Age (16-17, 18-19, 20-22), Income (less than $8,000, $8,000-$14,999, $15,000-$19,999, $20,000 and over, don't know/refused), and Race (White, Black) were used as variables in an analysis of variance design. Tests of the effect of each variable were made, partialling out the other three factors through application of least-squares techniques (Overall and Spiegel, 1969).

Table 2 shows the marginal means for all the significant effects. (The marginal means also are adjusted for confounding attributable to the other factors.) The mean values 1, 2, 3, 4, 5 correspond to the response alternatives a, b, c, d, e respectively. The higher the mean, the more attracted one is to the Navy. A number of the findings have immediate implications for developing selective appeals to different target groups.

For example, a number of the items showed differences in attractiveness as a function of educational status. Figure 5 illustrates one such finding. Comparing across groups, Item 4 (15 year retirement at half-pay) is significantly more attractive to the high school students than to the other categories. But, Item 6 (20 year retirement at 3/4 pay) shows no differential effect. It is equally highly attractive to all three groups. Within groups, the two alternatives are equally attractive to high school students, but the longer range payoff has greater appeal to the other (on the average, older) groups.

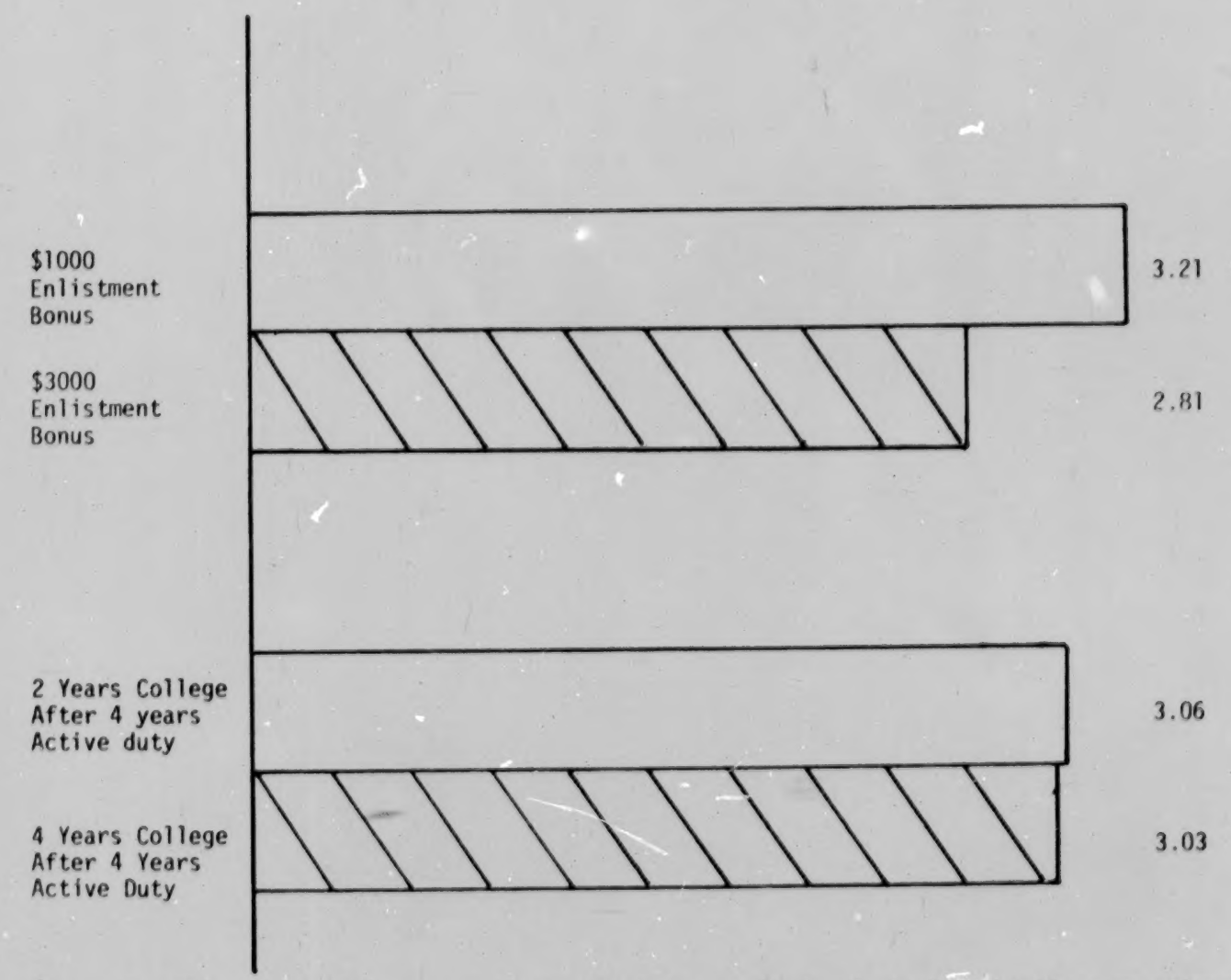

Figure 4. The effect of increases in the absolute magnitude of single incentives on attractiveness.

Table 2

Marginal Means of All the Significant Effects

Item 4

Educational Status
$p < .009$

H. S. Students	-	3.1
Non-School Youth	-	2.5
College Students	-	2.2

Item 7

Educational Status
$p < .023$

H. S. Students	-	2.9
Non-School Youth	-	2.5
College Students	-	2.1

Item 8

Educational Status
$p < .005$

H. S. Students	-	2.8
Non-School Youth	-	3.7
College Students	-	3.0

Item 12

Age
$p < .005$

16 - 17	-	2.5
18 - 19	-	2.8
20 - 22	-	3.4

Item 4+5

Educational Status
$p < .019$

H. S. Students	-	2.6
Non-School Youth	-	2.7
College Students	-	3.4

Item 7+8

Educational Status
$p < .001$

H. S. Students	-	2.6
Non-School Youth	-	3.5
College Students	-	3.8

Table 2 (continued)

Item 7+8

Age
$p < .043$

16 - 17	-	3.5
18 - 19	-	3.5
20 - 22	-	2.8

Item 10+11

Income
$p < .012$

< $ 8,000	-	2.6
$ 8,000-$14,999	-	3.5
$15,000-$19,999	-	3.5
$20,000 & over	-	3.1
Don't know/refused	-	2.6

Item 5+6

Educational Status
$p < .001$

H. S. Students	-	2.7
Non-School Youth	-	1.8
College Students	-	2.1

Item 5+6

Age
$p < .001$

16 - 17	-	1.8
18 - 19	-	2.6
20 - 22	-	2.3

Item 11+12

Educational Status
$p < .007$

H. S. Students	-	2.6
Non-School Youth	-	1.9
College Students	-	2.4

Item 11+12

Income
$p < .001$

< $ 8,000	-	3.2
$ 8,000-$14,999	-	2.2
$15,000-$19,999	-	2.4
$20,000 & over	-	2.1
Don't know/Refused	-	1.8

Table 2 (continued)

Item 14+15 Income $p < .001$			Item 1+2+3 Race $p < .030$		
< $ 8,000	-	3.2	White	-	2.8
$ 8,000-$14,999	-	2.0	Black	-	3.6
$15,000-$19,999	-	2.5			
$20,000 & over	-	1.7			
Don't know/Refused	-	2.0			

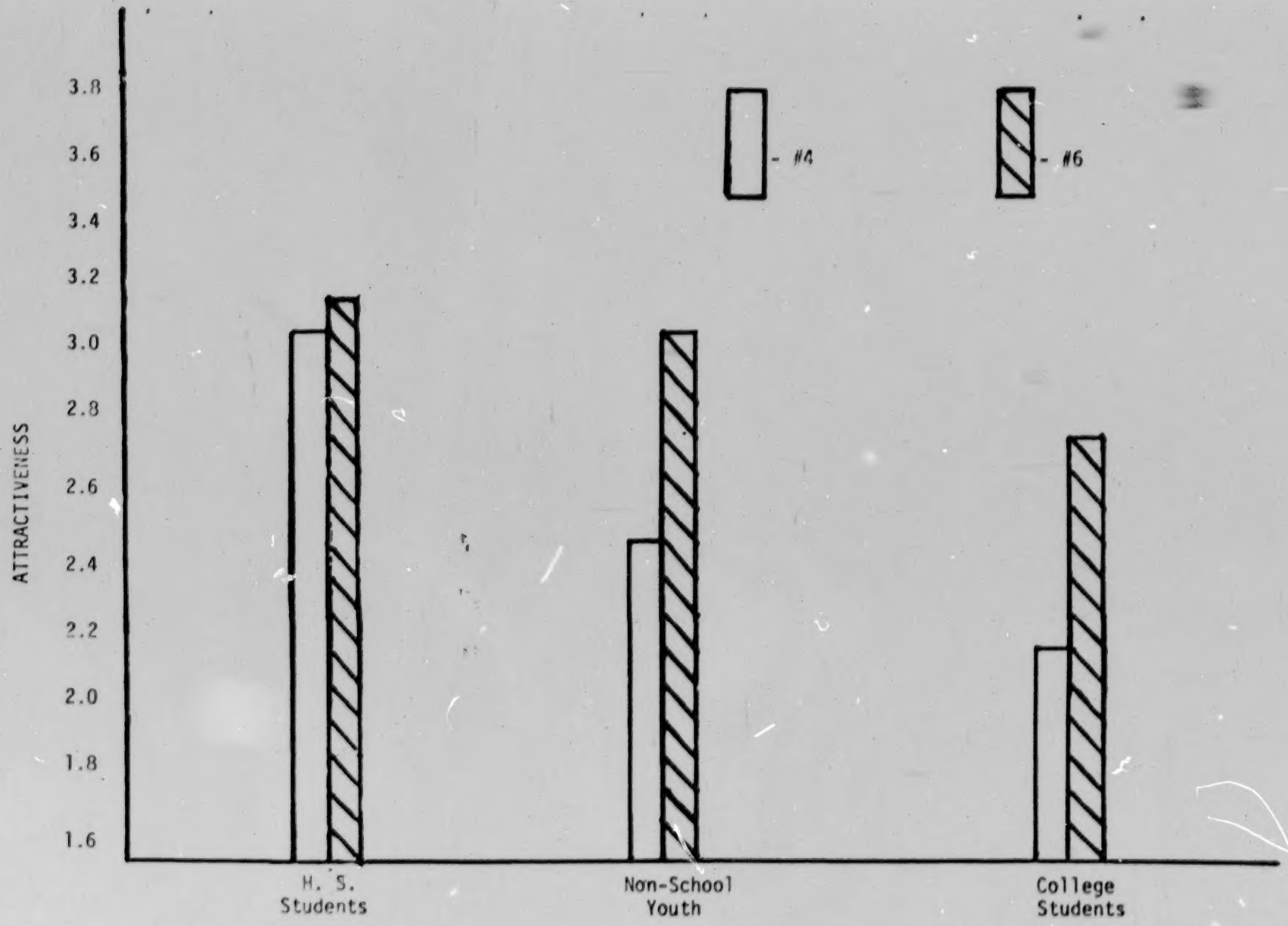

Figure 5. Comparative attractiveness of Items #4 and #6 for different education categories.

Figure 6 shows that the non-school youth are quite attracted by a choice of home port after two years of duty (Item 8).

Figures 7 and 8 show that the college students are quite attracted by two double packages. The first package is 15 year retirement at half-pay plus Naval pay and benefits being made the same as for civilian jobs (Items 4+5). The second package is two months educational leave per year plus choice of home port after two years of duty (Items 7+8).

Figures 9 and 10 both show that the lower income (under $8,000) group is attracted by tangible financial and educational packages. They responded favorably to the package of a performance bonus up to 25% of base pay plus a greater sea duty pay differential (Items 11+12). Also, they liked the package of reduced educational requirements for officer training programs plus four years of college after four years of active duty (Items 14+15). Similarly, Figure 11 shows that the Blacks (who are on the average low in socio-economic status) were very attracted by the triple package of a $3,000 enlistment bonus plus special job training to start civilian life plus a two year enlistment (Items 1+2+3).

Table 3 rank orders the single incentives by their overall attractiveness mean--highest to lowest. The sampling design limitations do not allow for statistical comparisons to be made of each item with every other item. The items were split-up between three subsamples to meet practical constraints on the number of responses required of each respondent and on the total size of the sample. Thus, simultaneous application of within-group and between-group modes of analysis was not possible. It is worth noting nonetheless, that the "best" item is not pecuniary, but reflective of the desire for self-determination in one's vocational life. Furthermore, the top five items reflect the themes of self-determination, financial satisfaction, and educational opportunities.

Because of the nature of the response alternatives, another type of analysis was done. Response alternative "e" ("I would think more favorably and would consider enlisting in the Navy") has meaningful administrative implications. The percentage of the respondents who respond with the strong statement "e" for a given incentive translates as an immediate estimate of behavioral intention to join the Navy if such a policy were to be adopted.

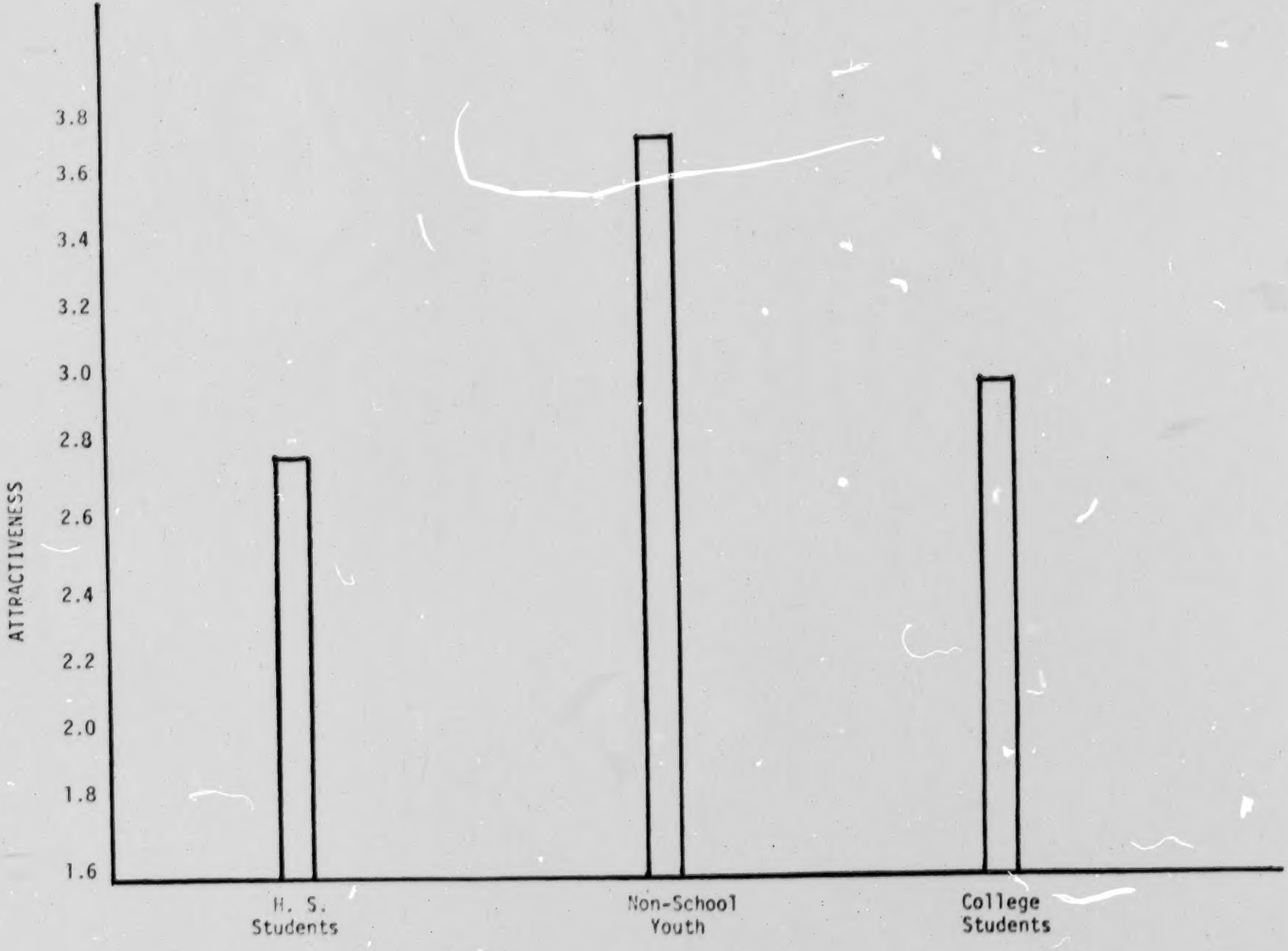

Figure 6. Comparative attractiveness of Item #8 for different education categories.

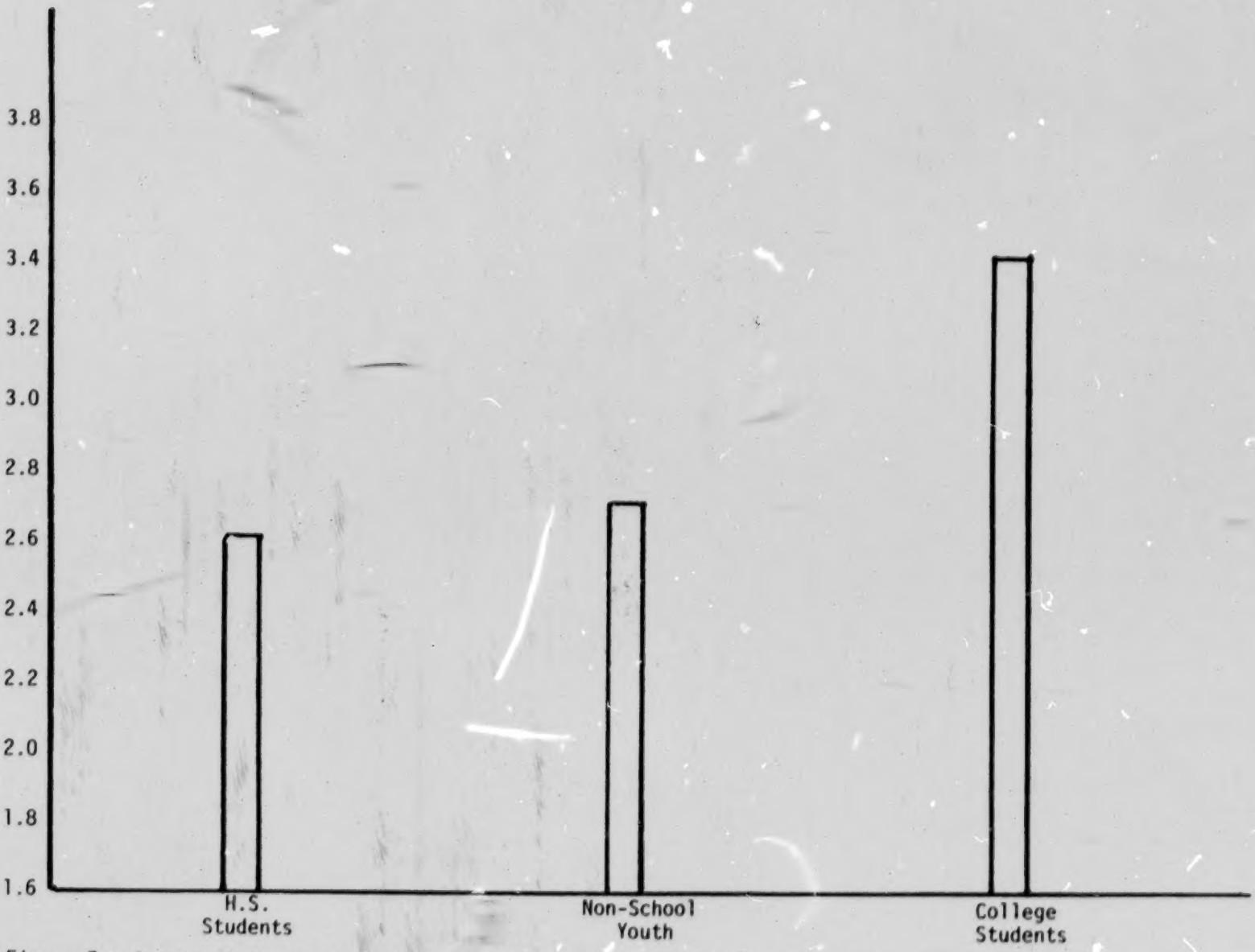

Figure 7. Comparative attractiveness of double package (#4+5) for different education categories.

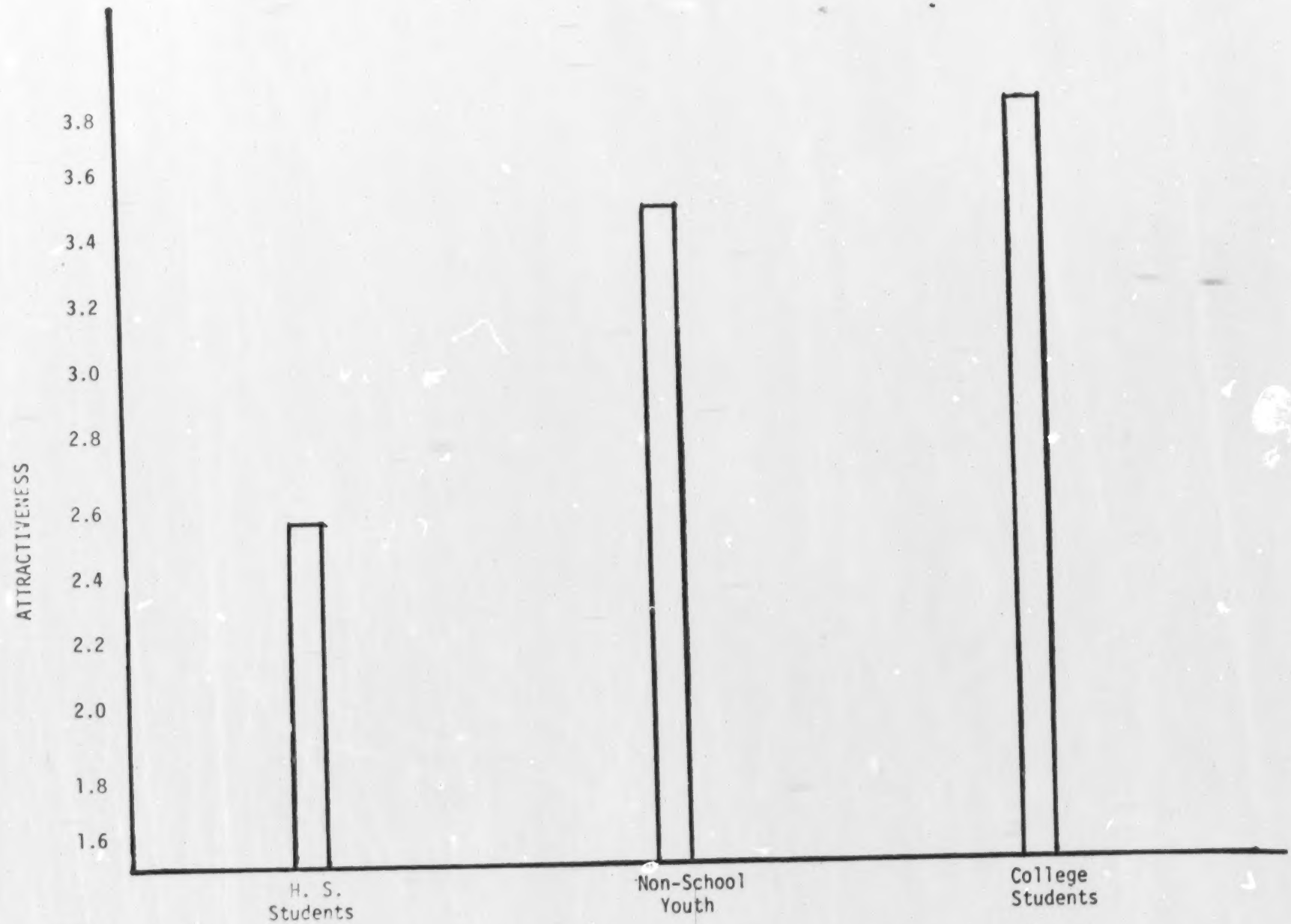

Figure 8. Comparative attractiveness of double package (#7+8) for different education categories.

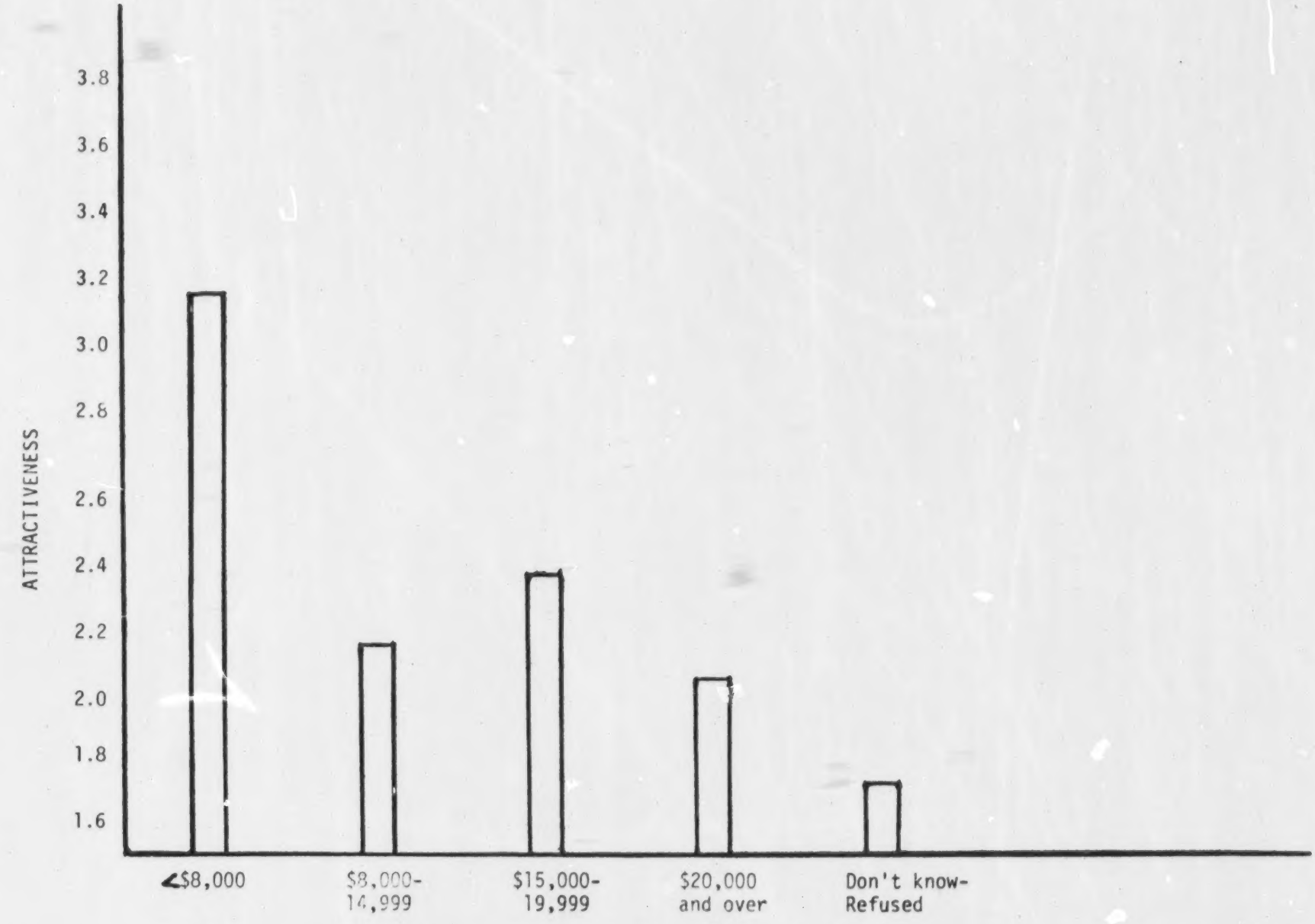

Figure 9. Comparative attractiveness of double package (#11+12) across family income levels.

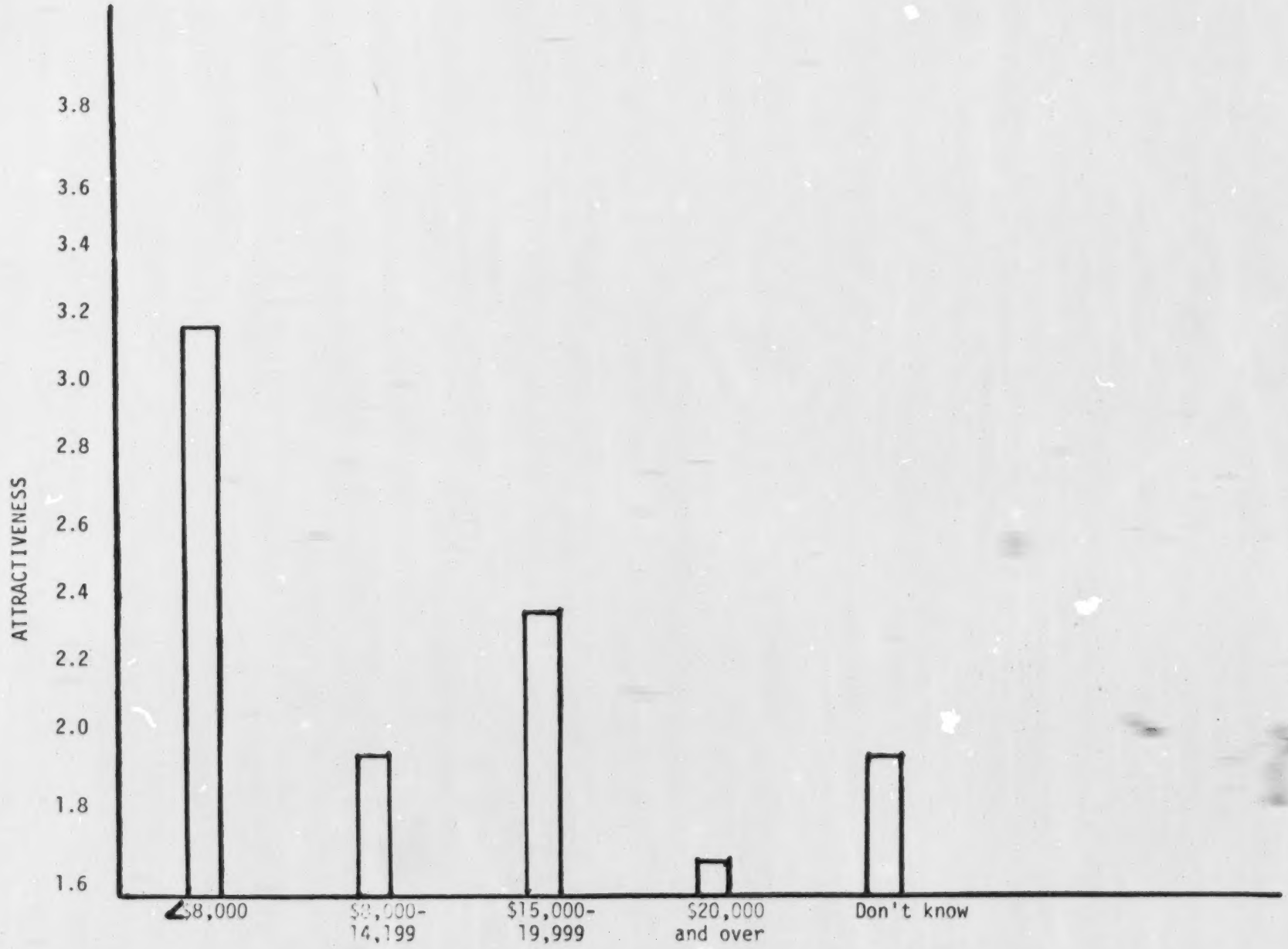

Figure 10. Comparative attractiveness of double package (#14+15) across family income levels.

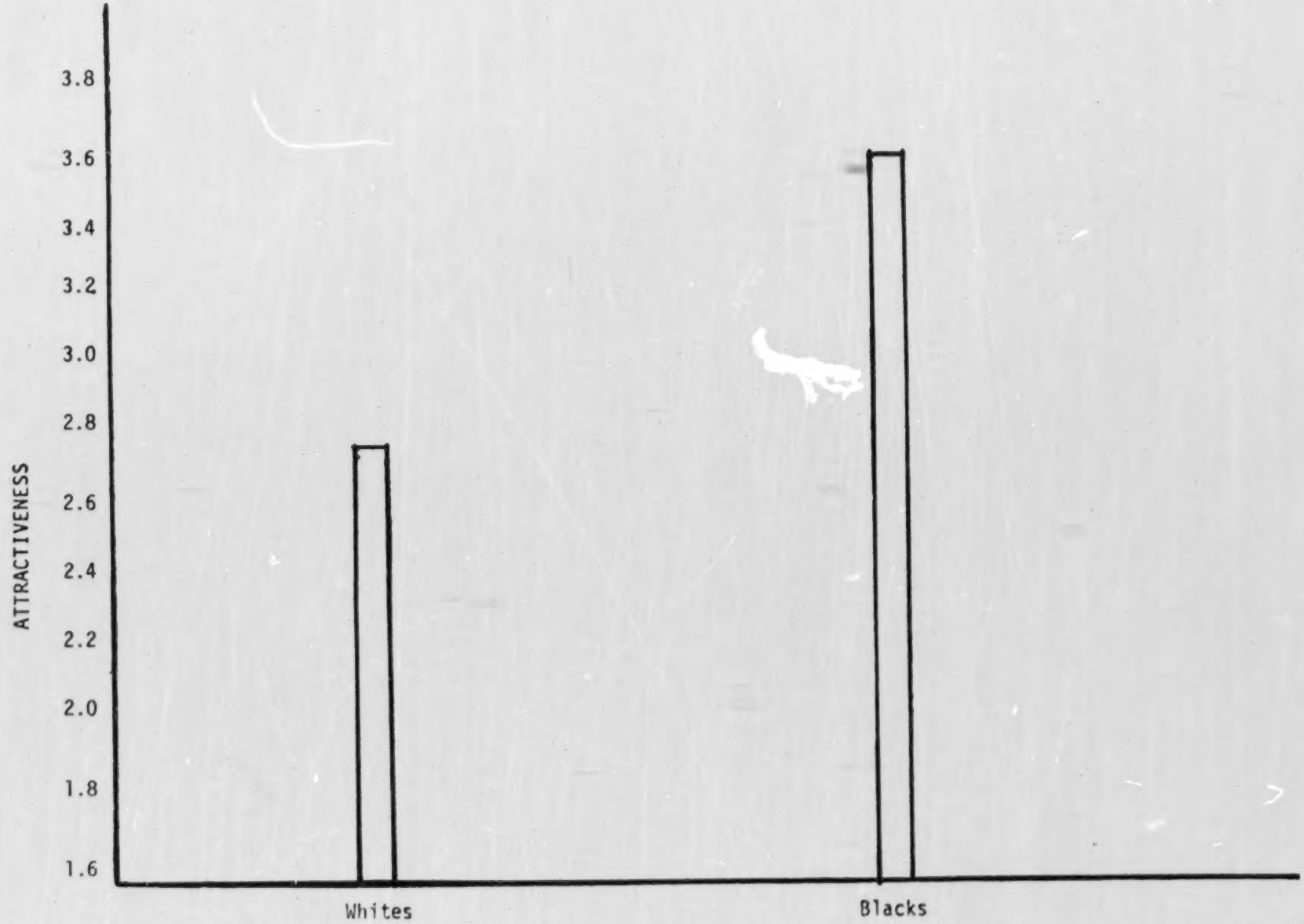

Figure 11. Comparative attractiveness of triple package (#1+2+3) for Whites and Blacks.

Table 3*

Overall Means of Each Incentive

Experimental Incentives for Enlistment	Mean Rating
Get out after three months if not satisfied	3.29
**$1000 enlistment bonus	3.21
Performance bonus up to 25% base pay	3.12
***Two years of college after four years of active duty	3.06
***Four years of college after four years of active duty	3.03
Choice of home port after two years of duty	3.03
Special job training to start civilian life	2.95
20-year retirement with 3/4 pay	2.93
Assign women to ship duty	2.93
Two months of educational leave per year	2.88
Two year enlistment period	2.88
**$3000 enlistment bonus	2.81
Opportunity to change job specialty after one year	2.76
Naval pay and benefits would be same as civilian	2.76
Reduced educational requirements for officer training programs	2.71
Greater sea duty pay differential	2.70
15-year retirement at half-pay	2.60

*The means and standard deviations for the entire sampling design (Figure 1) are shown in Appendix B.

**The first pair of items for testing the effect of increasing the absolute magnitude of incentives.

***The second pair of items for testing the effect of increasing the absolute magnitude of incentives.

Table 4 shows the percentage who answered "e" for each single incentive and two of the incentive packages. The latter two were included because they were the only packages where the "e" responses reached 20% or better.

The two items with the highest percentage of "e" responses were Item 17 ($1000 enlistment bonus) - 27%, and Item 13 (Get out after 3 months if not satisfied) - 25%. A χ^2 test between the two percentages was not significant. These items, of course, represent the dimensions of self-determination and financial/vocational satisfaction. Also noteworthy is the percentage of "e" responses for Item 11 (Performance bonus up to 25% base pay) - 20%. This item reflects the fact that there is a substantial number of young men who would regard the Navy with favor as a career opportunity if, as in civilian businesses, extra effort on their part could be expected to be directly recognized and reinforced by the organization's reward systems.

The percentage of "e" responses for Item 17 ($1000 enlistment bonus) and Item 1 ($3000 enlistment bonus) were 27% and 8% respectively. This is an overwhelming difference--χ^2 (Yates Correction) = 16.7, $p < .001$. This is the most dramatic refutation yet of the "more is better" assumption.

Table 4

Percentage of Respondents who Would Seriously Consider Enlisting if Policy were Adopted

Item	-	Percent	Item	-	Percent
1	-	8%	11	-	20%
2	-	14%	12	-	9%
3	-	12%	13	-	25%
4	-	7%	14	-	14%
5	-	9%	15	-	14%
6	-	13%	16	-	13%
7	-	10%	17	-	27%
8	-	15%	10+12	-	21%
9	-	8%	13+15	-	29%
10	-	13%			

DISCUSSION AND IMPLICATIONS

In this discussion we will first consider the findings that appear to have most generality; that apply pretty much to the whole youth population sampled. Then, we will look at those findings that represent differences in impact upon different segments of the population.

More is Better?

With regard to the appeal to young civilian men of these 17 experimental enlistment incentives, perhaps the most impressive finding is the consistency of results bearing on the question, "Is more better?"

The answer is, "More is not better". This conclusion applies both when the number of incentives offered is increased and when the absolute magnitude of incentives is increased. Indeed, there are even indications that "more is sometimes worse".

Thus, when we compared single, double and triple incentive packages, there was not even one case out of all the tests made where increasing the number of incentives enhanced the attractiveness of the Navy vis-a-vis the value of the best single incentives. It also should be noted that even the lowest rated single incentive has a mean rating which reflects a mildly positive attitude towards the Navy (a mean greater than 2.5). Thus, when the incentives are combined into packages, there is never included a negatively valued object which conceivably could have countervened the additive effect of the double and triple incentives.

The preference for the $1000 enlistment bonus over the $3000 enlistment bonus is even stronger evidence that more is not necessarily better. Increasing the number or absolute magnitude of certain incentives may often lead to the conclusion that the Navy is so unattractive that it must resort to heaping bribe upon bribe to trick him into joining. Incentives are not a "bag of goodies" to which the Navy can keep adding until it becomes an irresistible inducement to enlist. The implication is rather clear that the utility of a Type I incentive manipulation strategy approaches its ceiling quite rapidly. In fact, increasing some incentives beyond this ceiling could actually drive young men away from serious consideration of a Naval career.

What might be further reasons for the "more is sometimes worse" findings?

As just suggested, there may be a serious credibility problem. Many young men may gain the impression that if the Navy (which is part of the "Establishment") is offering such good-sounding incentives, there must be some really devious catches to them.

A second possibility may be that the high incentive levels violate an equity norm, thus becoming counterproductive. This norm may be a general social equity norm (cf. Adams, 1965), a personal equity norm as to what is suitable for the self (Korman, 1970,1971) or both. For example, equity theory research has shown that people tend to work harder when they believe they are being overpaid. If the higher incentive levels are seen as overpayment, a person would feel the need for increased effort if he joined the Navy. This prospect could very possibly dampen one's enthusiasm for enlisting.

A third possible explanation is that these increased incentives may be perceived as grossly manipulative. This would easily lead to feelings of resentment, negative affect, and "reactance" against the manipulator because one's feelings of free choice are being violated (Brehm, 1966). In fact, Brehm's theory predicts that if a person does indeed feel that his freedom of choice is threatened, he would be even less likely to enlist than he would without the prospect of the incentives. (In this way, he psychologically reestablishes his freedom of choice.)

These explanations are not mutually exclusive, and, in fact, can be integrated easily. In our future work, we plan to incorporate mechanisms to tease out which reasons are the most plausible.

Relative Appeal of Different Types of Incentives

In general, the most attractive items emphasize the importance of both perceived "fate control" and "traditional incentives" as significant factors influencing potential Naval career motivation. The thing to remember is that interest in traditional incentives has not waned, but that they are not enough by themselves. A degree of self-determination is expected as well.

Today's youth seems to place a high value upon playing an active role in determining the shape of his present and future activities and life style.

His view of the satisfactions offered by life in military service, are strongly conditioned by what he has seen and learned, and come to expect in civilian life. He appears less inclined than his predecessors to passive acceptance of arbitrary constraints upon his personal life and vocational choices as a condition of enlistment. Under zero draft conditions, he sees little reason to give up freedoms he would have as a civilian, unless there is a counterbalancing quid pro quo that meets some of his other needs, while perhaps recognizing that no absolute freedom exists under either civilian or military conditions. This degree of realism may be inferred from the previously mentioned fact that the mean ratings of the experimental incentives were slightly positive as a minimum; there was no indication of a pervasive anti-Navy bias leading respondents to discount many or all incentives indiscriminately.

It should be emphasized that we do not have here an "either-or" condition. Lack of fate control cannot be redeemed by tangible incentives; nor can increased fate control completely supplant the traditional incentives. Though we shall see shortly that different incentives may differ in relative strength for different socio-demographic subgroups, both of the major incentive types are important to all subgroups.

Differences in Attractiveness of Incentives as a Function of Socio-demographic Status

The differential attractiveness of certain incentives as a function of socio-demographic variables does indicate that the responses were made with some discrimination. As was the case in an earlier study of junior college students (Korman et al., 1973), the lower socio-economic group tended to be more attracted by financial incentives and other incentives that can be seen as having the potential to boost their upward mobility. As an example in the present data, we note that the only package which was significantly more attractive to blacks than whites was $3000 enlistment bonus plus special job training to start civilian life plus 2 year enlistment (Items 1+2+3). This result seems to be the sharpest illustration of the high appeal of tangible incentives to those at the lower end of the socio-economic continuum. (However, it should be pointed out that the number of blacks in the sample was quite small and hence questionably representative).

We can point out a few other examples of preferences related to socio-demographic variables. College students were particularly attracted by a package of better retirement pay plus pay equivalent to civilian jobs and a package of educational leave plus choice of home port. High school students on the other hand, were more attracted by such single incentives as opportunity for changing job specialities, reduced educational requirements for officer training programs, and 50% retirement pay after fifteen years of service.

Related Work in Progress

This report has pointed out a number of findings having both general theoretical interest and particular practical implications for the Navy, generated by our first sampling of the attractiveness of various experimental enlistment incentives to 16 to 22 year old civilian American males.

Work currently in progress as subtasks of this project are expected to shed more light on the reliability and generalizability of the results, interpretations and implications reported here.

A second round of interviews, noting appeals of incentives by a national sample like this one, has taken place, and is to be analysed in like fashion. Five of the items are the same as in this first round; ten are new items.

Similar incentives have been included in a questionnaire sent to a sample of men serving in their first enlistment in three shortage ratings, and a second iteration in that series is scheduled.

Operational Implications

For the Navy, two major operational implications may be read in the results obtained so far. First, there is demonstrated the potential utility of a more diagnostic approach to the design of incentives and the development of flexible recruiting programs adaptable to various target groups and changing conditions, based upon continuing feedback from empirical tests and evaluations. Second, is the indication that a viable strategy for the competitive appeal of the Navy under all-volunteer conditions cannot rely predominantly upon tangible incentives. Serious consideration should also be given to experimenting with organizational changes that provide a psychological climate that offers men a larger measure of personal fate control in their vocational life. Today's youth is still responsive to traditional incentives.

But this is not enough. They need to be able to perceive that a commitment to the Navy does not mean that you are "locked-in". They need to be able to see that many of the career options available when you are a civilian are also available when you are a sailor, plus maybe a few that are not available to civilians. Most particularly the Navy needs to show that it too allows a person to take into account the possibility that as he gains experience and maturity, as he learns more about himself and the world about him after he joins the Navy, he can correct the course he set out on as a "green kid"--with the anticipation of help rather than resistance from the Navy.

Suggestions for Administrative Experiments

It will no doubt be recognized that the results of this study apply to an "as if" condition, because the respondents have been asked in essence, "What if?" The incentives offered were not "real". For the most part you could not actually contract for them with your nearest Navy recruiter. The degree of validity of our interpretations and recommendations, of course, can be ultimately established only by administrative experiments in which such ideas for establishing incentives and making organizational change are put into effect operationally (usually on a pilot basis first) and their effectiveness measured in actual practice.

From the beginning of our present career motivation research program we have kept in mind the Navy's aim of translating the research findings into administrative action. And so we will devote the last section of this report to a few suggested "action packages". The number is deliberately limited, and the order of presentation is not meant to constitute a recommended priority. In each instance it is assumed that the administrative experiment would have an evaluation component built into it.

Pre-career counseling. We have pointed out elsewhere that the typical 18 or 19-year-old does not have a clear idea of his vocational objectives. He has not usually established long term career goals. He is still seeking information and experience, and expects that more often than not the uncertain future will hold several changes in whatever tentative plans or alternatives he may be considering. The Navy recruiting prospect is not much different from other young men, except perhaps in one salient regard. He is

confronted with a decision that is binding upon him for three or more years--under conditions perceived as highly ambiguous he is called upon to surrender a large measure of self-determination or fate control.

We have noted also that it appears that the youth who is drawn to the Navy, most often has pretty much made up his mind before becoming actively engaged in the recruiting process--that the Navy recruiter does not exercise much positive influence on the basic decision to apply for enlistment. On the other hand, one must consider that a substantial number of recruiting prospects may not permit themselves to be exposed to the recruiting process because of the uncertainty they feel, coupled with the implicit feeling that you have to be ready to accept enlistment as a highly likely outcome of any formal contact with a recruiter, because it is the recruiter's obligation to persuade you to enlist if you meet eligibility standards.

This suggests the desirability of the Navy creating a pre-career counseling program essentially separate from the recruiting process. In brief, we would envisage a vocational counseling service conducted by qualified civilian professionals that would offer free to youth of appropriate ages, without obligation to enlist, an opportunity to objectively review their occupational abilities and opportunities on an individualized basis both for civilian employers and in the Navy. It is hypothesized that this would lead many young people to consider opportunities for themselves in the Navy, who might not otherwise open themselves to that alternative, because: (1) independent professionals would be perceived as having competence and being committed to the counselee's welfare to a greater extent than recruiters can exercise; (2) parents are inclined to view vocational counseling as a good thing for their children; (3) the opportunity to obtain better vocationally related information would reduce the uncertainty and attendant lack of self-confidence that may make people reluctant to consider the Navy as an employer and to engage in further exploration with its employment office (the Recruiting Station); (4) the process would engender feelings of greater individual self-determination and fate control; (5) the image of the Navy as an organization having special concern for a person's individual welfare and opportunities could be directly experienced; and (6) initial exposure to fuller explanation and occupational information would lead to less expectancy-disconfirmation of those who do enlist and provide more positive feedback from sailors to civilian cohorts.

Tangible incentives. The most promising incentives, roughly speaking, reflect the same dimensions that are considered to be important in civilian jobs. The Navy is currently using reenlistment bonuses, but not bonuses for enlistment. The Army and Marine Corps are giving bonuses for enlistment in combat arms. Since the data upon which this report is based are from civilian youth, their implications bear more upon the recruiting than upon the reenlistment situation.

In general, any Navy experimentation with bonuses should be based upon careful testing of alternatives. From the evidence of this study, at least, "more is better" is a poor operating principle for attempting to recruit youth into an organization (i.e., the Navy) which has had to compete for personnel on a voluntary basis. The sharp dropoff in strong enlistment interest between the $1000 and $3000 bonus (27% to 8%) that we have reported, indicates that indiscriminate increases in the value of incentives can be quite dysfunctional. Financial incentives that are too high could drive people away (besides costing the Navy inordinate amounts of money). The means for operationally testing the utility of financial incentives is obvious--implementation accompanied by comparison of "before" and "after" behavioral indices and/or by comparison of results with "experimental" and "control" groups.

Diagnostic application of appeals to target populations. The analyses we performed of socio-demographic differences in response do indicate that specifically targeted incentives may produce better results than appeals that are directed at the undifferentiated mass. Thus, a reduction of educational requirements for officer training programs, linked with the use of other selection standards to maintain qualitative levels, might be aimed at both men in and out of service to attract those who are in junior college or the first two years of four-year institutions (or have completed the equivalent), perhaps in conjunction with a prescribed minimum period of enlisted service.

Other results of these analyses suggest that under some circumstances assembling multiple incentive packages may have value. However, their possible usefulness does not appear to exist in the sense that "more is better", but rather in the fact that many of the socio-demographic difference

effects are associated with response to these packages. For example, further research appears to be in order to further pin-point the tangible incentives that seem to be most meaningful to the less advantaged young members of society, and to design appeals through various media and to train recruiters to employ such information with greater diagnostic insight.

Performance bonuses. As a final illustration of an action package idea, we see intriguing possibilities in the use of a performance bonus stemming from the relatively high attraction reported for Item 11 (Performance bonus up to 25% of base pay). Twenty percent of the civilian youth who were interviewed said that they would seriously consider enlisting if that incentive existed, making it among the top three appeals by that measure. Explicit recognition of individual performance of unusual qualities is generally considered to be a desirable element in most wage and salary plans. The commitment to this aspect of the work ethic still appears to be strong among young people. However, no provision for individualized reward for quality performance is found in our military services. Enlisted proficiency pay (Pro-pay) increments are granted to categories of personnel on the basis of the occupational specialties in which they are engaged; and the needs of the service dictate which groups are to be granted this bonus.

One procedure by which a performance pay system might be introduced is to mate it with Pro-pay. It can be presumed that budgetary considerations will enter into determination of the feasibility of inaugurating performance pay. Therefore, it is suggested that part of the budgetary allowance now assigned to Pro-pay might be reallocated to performance pay. That is, the number of ratings and people eligible for Pro-pay could be cut back to free funds for performance pay.

It should also be pointed out that it would be possible to implement performance pay on a selective basis rather than across the board. Employing a rationale like that governing Pro-pay, application could be restricted to certain groups, and these could be changed from time to time as organizational requirements dictate.

An attractive feature of the performance pay concept is that it does not entail guarantees to individual recruits. Furthermore, though we only have data demonstrating a strong appeal among civilians, the nature of this

concept would argue, subject to obtaining further confirmatory evidence, that it is an incentive that would have impact both for recruiting and reenlistment purposes.

These do not represent the limit of specific operational implications that might be derived from our findings. It is hoped that they stimulate readers to generate additional ideas of their own. As the additional information comes in from the related studies that we mentioned, we also expect to be able to elaborate upon and add to the suggestions made here.

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APPENDIX A

APPENDIX A

Instructions to respondents. The following instructions will be read to each respondent by the interviewer:

> Here are a few changes that might be made in the Navy (PRESENT QUESTIONS). Please tell me what effect the introduction of these changes would have on your interest in the Navy. Pick one of these five statements that best reflects your feeling about each set of incentives (PRESENT RESPONSE ALTERNATIVES).

Incentive statements. The following comprise the incentive statements to be presented in various combinations for administration to respondents:

1. The Navy would give a person a bonus of $3,000 for enlisting.
2. The Navy would offer special job training after a person completed active duty, to help him get started in civilian life.
3. A person could enlist in the Navy for two years, instead of three or four years.
4. A person would be allowed to retire from the Navy and receive half pay after fifteen years instead of twenty years of service.
5. The pay and benefits for Navy jobs would be made about the same as pay and benefits for similar civilian jobs.
6. After twenty years of service, a person would be allowed to retire from the Navy and receive three-fourths pay instead of half-pay.
7. For each year of Navy service, a person could accumulate two months of educational leave with pay.
8. After the first two years of duty, the Navy would guarantee a person his choice of a home port for at least one year.
9. After one year in the Navy, a person could change his job specialty.
10. The Navy would assign women to duty aboard most ships.

11. In the Navy, a person could receive a yearly bonus of up to 25% of his base pay for exceptionally good performance.

12. The Navy would make pay for sea duty substantially higher than for shore duty.

13. A person who was not satisfied could get out of the Navy after three months, with no strings attached.

14. The Navy would reduce the educational requirement for officer training programs from four years to two years of college.

15. Enlisted men would be paid by the government for four years of college, including living expenses at the school of their choice, after completing four years of active duty in the Navy.

16. Enlisted men would be paid by the government for two years of college, including living expenses at the school of their choice, after completing four years of active duty in the Navy.

17. The Navy would give a person a bonus of $1,000 for enlisting.

Response alternatives. The following information will be printed on a card and given to the interviewee to enable him to select a response:

Indicate what effect these changes would have on your interest in the Navy, by choosing a, b, c, d, or e.

a. I would think less favorably of the Navy, if this change were introduced.

b. I would think neither more or less favorably of the Navy, if this change were introduced.

c. I would think more favorably of the Navy, if this change were introduced.

d. I would think more favorably of the Navy, and would try to get more information about Navy programs, if this change were introduced.

e. I would think more favorably and would seriously consider enlisting in the Navy.

APPENDIX B

APPENDIX B

Subsample A	Mean	Standard Deviation
1	2.81	1.03
4	2.60	1.05
7	2.88	1.02
10	2.93	1.13
13	3.29	1.22
16	3.06	1.14

Subsample B		
2	2.95	1.16
5	2.76	1.12
8	3.03	1.13
11	3.12	1.24
14	2.71	1.31
17	3.21	1.37

Subsample C		
3	2.88	1.09
6	2.93	1.06
9	2.76	1.04
12	2.70	1.03
15	3.03	1.14

Subsample D		
1+2	2.89	1.01
4+5	2.82	.93
7+8	2.88	.95
10+11	2.94	1.07
13+14	3.30	1.11

Subsample E	Mean	Standard Deviation
2+3	2.62	.80
5+6	2.65	.86
8+9	2.57	.85
11+12	2.54	.93
14+15	2.60	1.02

Subsample F		
1+3	2.93	1.07
4+6	2.79	1.02
7+9	3.07	1.05
10+12	3.22	1.18
13+15	3.51	1.18

Subsample G		
1+2+3	2.94	.89
4+5+6	2.72	.92
7+8+9	2.83	.87
10+11+12	3.12	.90
13+14+15	3.21	1.08

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